Information for Applying

**General Information**

Industrial & Enterprise Systems Engineering (ISE) offers four graduate degree programs as well as one online option:

- **MS Industrial Engineering (on campus and online)**
  
  https://ise.illinois.edu/graduate/degrees-and-programs/master-science-industrial-engineering.html
  
  - Applicants who wish to pursue the online degree program must apply specifically to that program. If you apply to the wrong program, please contact the Graduate Programs Office.
  
  - Students may apply directly to the Advanced Analytics concentration by choosing so in the application.
  
  - Full-time employees of the University of Illinois will be admitted only as on-campus students and may complete this program on a part-time basis.

- **MS Systems & Entrepreneurial Engineering**
  
  https://ise.illinois.edu/graduate/degrees-and-programs/master-science-systems-entrepreneurial-engineering.html

- **PhD Industrial Engineering**
  
  https://ise.illinois.edu/graduate/degrees-and-programs/phd-industrial-engineering.html

- **PhD Systems and Entrepreneurial Engineering.**
  
  https://ise.illinois.edu/graduate/degrees-and-programs/phd-systems-entrepreneurial-engineering.html

- **Non-degree online options (does not require a formal application)**
  
  https://ise.illinois.edu/graduate/degrees-and-programs/online-nondegree.html
  
  - Take online courses at your convenience as a non-degree student
    
    - No limit
    
    - Only 12 hours of “B” or better coursework may be transferred to a degree program.
    
    - Starting as a non-degree student does not guarantee admission into the program.
  
  - **Advanced Analytics Certificate**
    
    https://ise.illinois.edu/graduate/degrees-and-programs/advanced-analytics-certificate.html
    
    - 12 hours of advanced analytics coursework
    
    - For online, non-degree students only
    
    - Email Rhonda McElroy to sign up at rmcelroy@illinois.edu

- **Online course availability, registration deadlines, and information is available at**
  
  http://engineering.illinois.edu/online/.

**ISE offers research in the areas of:**

- Data Analytics
- Decision and Control Systems
- Design and Manufacturing
- Financial Engineering
- Operations Research.
Join our ISE Graduate Application Facebook page and have discussions with other students applying to our programs at https://www.facebook.com/groups/isegradapps/

Check out the new ISE Graduate Programs Wiki page. This is a new page for the ISE Graduate Programs. Additional information will be added as needed or as questions arise. Feel free to participate! https://wiki.illinois.edu/wiki/display/studentsatise/ISE+Graduate+Programs

**Industrial Engineering (IE)** - Advanced studies in operations research, optimization, supply chain and revenue management, financial engineering, quality and reliability engineering and product design and development. The **Advanced Analytics in ISE Concentration** is now available with the MS Industrial Engineering degree program. You may select this concentration when applying by using the radio buttons show.

**Systems and Entrepreneurial Engineering (SEE)** - Focus on systems engineering, engineering design and entrepreneurial engineering topics across disciplinary lines involving optimal interfacing between engineering & science and mathematics at a systems level.

<table>
<thead>
<tr>
<th>Semester Applying</th>
<th>Applications Available</th>
<th>Deadline for full consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2019</td>
<td>July 15, 2018</td>
<td>September 15, 2018</td>
</tr>
<tr>
<td>Summer 2019</td>
<td>Early August 2018</td>
<td>January 15, 2019</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>Early August 2018</td>
<td>January 15, 2019</td>
</tr>
</tbody>
</table>

Although applications may be submitted after the deadline, keep in mind that ISE **WILL NOT** admit applicants if we feel that the required paperwork and documents cannot be completed in time for the applied semester. Please contact the ISE Graduate Programs office at ise-grad@illinois.edu if you wish to apply after the deadline.

All applications materials must be received within two weeks of the deadlines listed above (approx. Sept. 30 & January 31). **Applications will not be reviewed until complete as indicated on the my.ise website.** See https://my.ise.illinois.edu/gradstat/login.asp. You will receive a link and access to this website after your application has been submitted.

**APPLY HERE** → http://www.grad.illinois.edu/admissions/apply

**Program Requirements for Application**
- GPA of 3.25/4.00 or equivalent (last 60 hours)
- GRE-no minimum score-waiver available; See ** below.
- Bachelor’s degree in an engineering discipline from an accredited institution (mathematics acceptable)
- English Proficiency (international applicants only)-waiver available; See * below.
  - TOEFL minimum score 103 (iBT) (international applicants only).
  - IELTS minimum score of 7 overall and in all sub-sections
  - TOEFL or IELTS scores must be less than two years old from the first day of class at the proposed term of entry in order to be valid.
• Students may be admitted on limited status if their TOEFL iBT score is 79-102, or if their IELTS score is 6.5 overall with a 7 or higher in all sub-sections, but the applicant must be outstanding in other areas. Limited status admission requires the student take the English Placement Test (EPT) at the University of Illinois. On the basis of the EPT results, applicants may be required to enroll in non-credit "English as a Second Language" (ESL) courses and/or take a reduced academic load beginning the first semester at the University. Students on Limited status admission may not hold an assistantship.

Please [click here](http://www.grad.illinois.edu/admissions/apply/exemptcountries) for a list of countries that qualify for an exemption from the English proficiency requirement for admission.

### Application Items Required

<table>
<thead>
<tr>
<th>Simple Entry Program</th>
<th>Domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>This program is for ISE undergraduate students ONLY who wish to enter one of the MS programs in ISE. REQUIREMENT: 3.5 UIUC GPA in IE or SED beginning with the Junior year (3rd year) forward.</td>
<td>U.S. Citizens, Lawful Permanent Residents, and those in Asylee, Paroled in Public Interest, or Refugee status.</td>
<td>Citizens and permanent residents of a country other than the United States. If you are in the process of applying for lawful U.S. Permanent Residency, you should choose Adjusted Status as your citizenship type.</td>
</tr>
</tbody>
</table>

- Online application (fee will be paid by ISE; contact [ise-grad@illinois.edu](mailto:ise-grad@illinois.edu) for details)
- DARS report (wait for fall or spring grades to post)
- Statement of Purpose
- Resume
- One letter of recommendation from an ISE faculty member
- Passport (international only)
- Evidence of Financial Resources (international only)

<table>
<thead>
<tr>
<th></th>
<th>On-line application</th>
<th>Application fee-$70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statement of Purpose</td>
<td>Resume</td>
</tr>
<tr>
<td></td>
<td>Three letters of recommendation</td>
<td>Transcripts (may be unofficial, but applicant name and university name must appear)</td>
</tr>
<tr>
<td></td>
<td>Official GRE scores</td>
<td>(recommended by not required for ONLY MS applicants)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>On-line application</th>
<th>Application fee-$90</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statement of purpose</td>
<td>Resume</td>
</tr>
<tr>
<td></td>
<td>Three letters of recommendation</td>
<td>Transcripts in English and native language (may be unofficial, but applicant name and university name must appear)</td>
</tr>
<tr>
<td></td>
<td>Certificate of degree in English and native language (if earned)</td>
<td>Official GRE scores</td>
</tr>
<tr>
<td></td>
<td>Official TOEFL scores-Waiver available; see below*</td>
<td>Passport</td>
</tr>
<tr>
<td></td>
<td>Evidence of financial resources**</td>
<td></td>
</tr>
</tbody>
</table>

**Request ETS to send scores to University Code 1836**

All materials (transcripts, statement of purpose, etc.) may be uploaded online during the application process. **Please DO NOT send official copies of transcripts, diplomas, or reference letters.** If official copies or additional materials are needed from an applicant, the applicant will be sent a request via email. Do not send additional materials, such as publications, photographs, or portfolios. These items are not reviewed during the admission process and will be discarded.
* TOEFL scores may be waived if one of the following criteria is met:
  • Completion of at least two years of post-secondary full-time study, as defined by the home institution, in a country where English is the primary language and at an institution where English is the primary medium of instruction, within five years of the proposed term of initial enrollment at the University of Illinois at Urbana-Champaign.
  • Completion of at least two years of professional work experience in a country where English is the primary language within five years of the proposed term of initial enrollment at the University of Illinois at Urbana-Champaign.
  • Completion of a post-secondary degree in a country where English is the primary language and at an institution where English is the primary language of instruction, within five years of the proposed term of initial enrollment.

IMPORTANT: Please note that this exemption is for admission purposes only. This does not provide an exemption for international teaching assistants. For more information, please see the English Proficiency Requirement for International Teaching Assistants at http://www.grad.illinois.edu/admissions/taengprof.htm.

**GRE scores may be waived if one of the following criteria is met:
  • MS Simple Entry Applicants who do not wish to continue for a PhD
  • MS applicants who do not wish to continue for a PhD who have significant work experience.
    Request must be made via email to ise-grad@illinois.edu. Please include a resume or CV.

** Information regarding evidence of financial resources and acceptable funding documents is available at http://www.grad.illinois.edu/sites/default/files/pdfs/certoffinances.pdf. Uploading this documentation during the application process will save a tremendous amount of time for you and our staff. If admitted, your I-20 will not be issued without evidence of financial resources. If you are unable to upload these documents at the time of your application, please do not email or send them unless you are requested to do so. Students who uploaded their documentation during the application process received their I-20 approximately three weeks sooner than those who waited until after admission.

### Additional Program Information Sites:

<table>
<thead>
<tr>
<th>Graduate and Professional Admissions (The Graduate College)</th>
<th><a href="http://www.grad.illinois.edu/admissions">http://www.grad.illinois.edu/admissions</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>ISE Faculty</td>
<td><a href="http://ise.illinois.edu/directory/faculty.html">http://ise.illinois.edu/directory/faculty.html</a></td>
</tr>
<tr>
<td>ISE Graduate Page</td>
<td><a href="http://ise.illinois.edu/graduate/">http://ise.illinois.edu/graduate/</a></td>
</tr>
<tr>
<td>ISE Research Areas</td>
<td><a href="http://ise.illinois.edu/research/index.html">http://ise.illinois.edu/research/index.html</a></td>
</tr>
<tr>
<td>ISE Courses (400 &amp; 500-level are graduate)</td>
<td><a href="http://ise.illinois.edu/courses/">http://ise.illinois.edu/courses/</a></td>
</tr>
<tr>
<td>Minimum Admission Requirements by Country</td>
<td><a href="http://www.grad.illinois.edu/admissions/countries">http://www.grad.illinois.edu/admissions/countries</a></td>
</tr>
<tr>
<td>Tuition and Fee Rates</td>
<td><a href="http://registrar.illinois.edu/tuition-fee-rates">http://registrar.illinois.edu/tuition-fee-rates</a></td>
</tr>
<tr>
<td>University of Illinois Courses</td>
<td><a href="https://courses.illinois.edu/">https://courses.illinois.edu/</a></td>
</tr>
</tbody>
</table>

### Miscellaneous Information

- The Department does not pre-review potential applicants
- The Department does not review unpaid applications
- Applicants will be notified via email when the application is received
- Applicants will be notified via email if additional items are required
- There is no word limit for the Statement of Purpose; however, ISE recommends no more than 2 pages, double spaced.
- ISE will not upload updated copies of resumes, personal statements, or transcripts.
- Applicants can check https://my.ise.illinois.edu/gradstat/login.asp to verify if application materials are missing or if their letters of recommendation have been received.
- Applicants will be notified via email as soon as a decision for graduate study is made by the graduate committee.
- ISE will not respond to inquiries regarding the status of admission. If your application is complete, it is under review.
- All applications are considered for any financial aid available
  - Fellowships
  - Internal Scholarships
  - Assistantships
    - TA (teaching)
      - International TAs must show English proficiency by scoring a 24 or higher on the TOEFL speaking sub-section, an 8 or higher on the IELTS speaking sub-section, or pass the English proficiency interview offered at the University of Illinois campus.
    - RA (research)

Underrepresented Students
ISE participates in two programs in which we bring underrepresented domestic students to campus for a visit.

- **ASPIRE** is a diversity recruitment initiative designed to increase the pool of students from populations historically underrepresented in graduate programs at Illinois. This campus visit program provides talented underrepresented students from across the nation with the opportunity to visit our campus early in the application process, while simultaneously allowing departments at Illinois to showcase the quality and strength of their programs. [http://www.grad.illinois.edu/eep/aspire](http://www.grad.illinois.edu/eep/aspire)
- The **Multicultural Engineering Recruitment for Graduate Education (MERGE)** program invites promising students to visit campus for an all-expense-paid, in-depth view of the outstanding programs and facilities available for graduate study in the top-ranked fields of engineering, computer science and physics in Illinois. Previous MERGE programs have hosted over 570 students from 85 universities across the United States and Puerto Rico.

Eligibility Criteria: Candidate must be a U.S. Citizen or permanent resident, currently enrolled or recently completed an accredited curriculum in engineering or physics. Preference will be given to individuals who will be graduating in the coming year, with a GPA of 3.2 or higher (on a 4.0 point scale), and individuals whose cultural background will increase the diversity of the graduate student body.

[http://engineering.illinois.edu/academics/graduate/diversity-programs/merge.html](http://engineering.illinois.edu/academics/graduate/diversity-programs/merge.html)
[https://my.engr.illinois.edu/submit/](https://my.engr.illinois.edu/submit/)
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree, College/Department</th>
<th>Research Interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. T. Allison</td>
<td>PhD, Mechanical Engineering</td>
<td>Multidisciplinary design optimization, integrated physical/control system design, system architecture and topology optimization; applications in renewable energy, robotics, aerospace and automotive systems, structures, and material design.</td>
</tr>
<tr>
<td>C. L. Beck</td>
<td>PhD, Electrical Engineering</td>
<td>Control systems, modeling and model reduction for the purpose of control, systems theory, combinatorial optimization, clustering and data aggregation.</td>
</tr>
<tr>
<td>K. Chandrasekaran</td>
<td>PhD, Algorithms, Combinatorics &amp; Optimization</td>
<td>Integer programming, combinatorial optimization, probabilistic methods and analysis, randomized algorithms.</td>
</tr>
<tr>
<td>X. Chen</td>
<td>PhD, Operations Research</td>
<td>Operations research/management, inventory and supply chain management, dynamic pricing and revenue management, optimization and optimal control.</td>
</tr>
<tr>
<td>A. Chronopoulou</td>
<td>PhD, Statistics</td>
<td>Financial engineering, stochastic modeling and simulation, stochastic systems with long memory, statistical inference for stochastic processes.</td>
</tr>
<tr>
<td>S. R. Etessami</td>
<td>PhD, Electrical and Computer Engineering</td>
<td>Social and distributed networks, algorithmic game theory, smart grids, machine learning, algorithm design, and computational complexity.</td>
</tr>
<tr>
<td>L. Feng</td>
<td>PhD, Industrial Engineering &amp; Mgt. Sciences</td>
<td>Stochastic modeling, operations research, financial engineering.</td>
</tr>
<tr>
<td>J. Garg</td>
<td>PhD, Computer Science and Engineering</td>
<td>Computational aspects of economics and game theory, combinatorial optimization, design and analysis of algorithms, and mathematical programming.</td>
</tr>
<tr>
<td>N. He</td>
<td>PhD, Operations Research</td>
<td>Large-scale optimization and machine learning, optimization under uncertainty, nonparametric statistical inference</td>
</tr>
<tr>
<td>T. Kesavadas</td>
<td>PhD, Industrial &amp; Systems Engineering</td>
<td>Medical robotics and simulation, virtual reality in design, haptics and human computer interaction.</td>
</tr>
<tr>
<td>H. Kim</td>
<td>PhD, Mechanical Engineering</td>
<td>Multidisciplinary design optimization (MDO), large-scale decision making, sustainable systems and green design, energy systems engineering, predictive design analytics for complex systems, life cycle design.</td>
</tr>
<tr>
<td>G. Krishnan</td>
<td>PhD, Mechanical Engineering</td>
<td>Design and manufacturing of compliant systems, microsystems, soft adaptable robots, and rehabilitation robotic devices, automated conceptual synthesis, topology optimization and shape-size optimization of mechanical components.</td>
</tr>
<tr>
<td>Name</td>
<td>Degree, Department/Engineering</td>
<td>Research Areas</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Y. Li</td>
<td>PhD, Aerospace Engineering Virginia Tech</td>
<td>Discovery and applications of advanced engineering material systems through multiscale, modeling, and experiments.</td>
</tr>
<tr>
<td>L. Marla</td>
<td>PhD, Transportation Systems Massachusetts Institute of Technology</td>
<td>Large-scale optimization, robust network design under uncertainty, data-driven optimization, transportation and logistics networks, aviation, emergency medical systems.</td>
</tr>
<tr>
<td>R. Nagi</td>
<td>PhD, Mechanical Engineering University of Maryland at College Park</td>
<td>Facilities design, production systems, applied/military operations research, information fusion.</td>
</tr>
<tr>
<td>S. Oh</td>
<td>PhD, Electrical Engineering Stanford University</td>
<td>Statistical inference, graphical models, applications to social computation.</td>
</tr>
<tr>
<td>H. Reis</td>
<td>PhD, Mechanical Engineering Massachusetts Institute of Technology</td>
<td>Nondestructive testing and evaluation, structural health monitoring, prognosis of structural components, structural damage detection and assessment, advanced sensors, advanced composites.</td>
</tr>
<tr>
<td>J. Sirignano</td>
<td>PhD, Management Science and Engineering Stanford University</td>
<td>Machine learning, optimization, stochastic modeling, financial engineering.</td>
</tr>
<tr>
<td>R. Sowers</td>
<td>PhD, Applied Mathematics University of Maryland at College Park</td>
<td>Dynamics of financial systems and financial interactions. Dimensional reduction of stochastic systems, scaling and big data.</td>
</tr>
<tr>
<td>D. Stipanović</td>
<td>PhD, Electrical Engineering Santa Clara University</td>
<td>Controls, differential games, large-scale systems.</td>
</tr>
<tr>
<td>A. Stolyar</td>
<td>PhD, Mathematics USSR Academy of Science</td>
<td>Stochastic Processes and Queueing Networks; Stochastic Modeling of Communication, Information and Service Systems.</td>
</tr>
<tr>
<td>R. Sun</td>
<td>PhD, Electrical and Computer Engineering University of Minnesota</td>
<td>Large-scale optimization, maching learning, signal processing, information theory and wireless communication.</td>
</tr>
<tr>
<td>D. L. Thurston</td>
<td>PhD, Civil Engineering Massachusetts Institute of Technology</td>
<td>Multiattribute decision-making under uncertainty and risk, environmentally conscious design and manufacturing.</td>
</tr>
<tr>
<td>P. Wang</td>
<td>PhD, Mechanical Engineering University of Maryland at College Park</td>
<td>Design of resilient complex systems, data analytics for system resilience and sustainability analysis, and uncertainty quantification and management.</td>
</tr>
<tr>
<td>Q. Wang</td>
<td>PhD, Engineering &amp; Public Policy Carnegie Mellon University</td>
<td>Control and optimization of manufacturing and service systems, pricing, inventory, and revenue management, modeling and analysis of public policies, applied economics analysis of communication networks.</td>
</tr>
<tr>
<td>A. Wooldridge</td>
<td>PhD, Industrial Engineering University of Wisconsin Madison</td>
<td>Healthcare systems and cognitive engineering, human factors engineering, analysis, modeling and improvement of complex sociotechnical systems.</td>
</tr>
</tbody>
</table>
Statistics about ISE Graduate Programs

Fall and Summer 2018 Incoming Class Profile:

<table>
<thead>
<tr>
<th>Class Size</th>
<th>34</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS IE</td>
<td>21</td>
</tr>
<tr>
<td>MS SEE</td>
<td>1</td>
</tr>
<tr>
<td>PhD IE</td>
<td>11</td>
</tr>
<tr>
<td>PhD SEE</td>
<td>1</td>
</tr>
<tr>
<td>Women</td>
<td>15 (44.1%)</td>
</tr>
<tr>
<td>International</td>
<td>29 (85.2%)</td>
</tr>
<tr>
<td>Minority (% of domestic students)</td>
<td>0</td>
</tr>
<tr>
<td>Age (mean)</td>
<td>23</td>
</tr>
<tr>
<td>GRE-Verbal Reasoning (mean)</td>
<td>150</td>
</tr>
<tr>
<td>GRE-Quantitative Reasoning (mean)</td>
<td>165</td>
</tr>
<tr>
<td>GRE-Analytical Writing (mean)</td>
<td>3.7</td>
</tr>
<tr>
<td>Undergraduate GPA (mean)</td>
<td>3.52</td>
</tr>
</tbody>
</table>

Nationalities Represented:

China
India
Iran
South Korea
United States of America
Jordan
FAQ—Frequently Asked Questions

Application Information Page

Q: What are ISE’s Concentrations/Fields of Specialization?
A: The MS Industrial Engineering degree program has an Advanced Analytics in ISE concentration. This is the only concentration available and it is only with the MS IE degree. Other departments offer concentrations which ISE students may pursue, but you cannot be admitted into the concentration at the time of application.

Application Information Page—Fee Waiver

Q: Am I eligible for an application fee waiver?
A: Certain domestic applicants (U of I Civil Service Staff, Academic Professionals, Faculty, Employees of Allied Agencies, or applicants to designated programs, such as Project 1000, McNair Scholars, CIC FreeApp) may be eligible for an application fee waiver or exemption. If you are eligible for a fee waiver, choose the appropriate waiver in the application. Unfortunately, unless the applicant is covered by one of the waivers described above, the application fee will not be waived. International applicants are not eligible for an application fee waiver unless studying under an exchange contract that includes an application fee waiver. Students applying using the ISE Simple Entry Program should email ise-grad@illinois.edu for waiver instructions.

Statements

Q: Does ISE have any Program Specific Questions?
A: ISE does have two program specific questions, which will be asked in the application pages. You will be asked to rank your Research Area Preference and provide your bachelor’s major ranking.

Research Area Preference (you will be asked to rank 1-5; with 1 being the highest):

a. Data Analytics  
b. Decision & Control Systems  
c. Design & Manufacturing  
d. Financial Engineering  
e. Operations Research

Major ranking in your bachelor’s institution  

f. Top 1-2 %  
g. Top 5 %  
h. Top 10 %  
i. Top 20 %  
j. Top 50 %  
k. Other

Q: Where can I get a Declaration and Certification of Finances form?
A: The form is available in pdf format within the online application or at http://www.grad.illinois.edu/sites/default/files/pdfs/certoffinances.pdf.

Q: If I apply to the Ph.D. degree program and do not get in, will I be considered for the M.S. degree program?
A: Yes
Q: What are the minimum GRE scores required for admission?
A: *ISE does not have a minimum GRE score for admission, but GRE scores must be submitted. Average scores for admitted students for Fall 2017 were Verbal: 155; Quantitative: 168; Analytical Writing: 3.6.*

Q: Do I need to find a faculty member to work under before I am admitted?
A: *No. Most of our students are admitted without an association to a faculty member. We expect the student to find a faculty member to work with by the end of the first semester.*

Q: How many students do you admit each term?
A: *We do not admit a set number of students each term. Admission depends upon the quality of the applicant.*

Q: Do I have to submit a Declaration of Finance Form when I submit my application (International Students Only)?
A: *ISE highly recommends that this form is submitted with the application. It will save time if admitted to our program. Students who submitted their proof of funding at the time of application received their I-20 approximately three weeks earlier than those who waited until admission.*

Q: When will I be notified of admission/denial?
A: *ISE does not have a specific date that we notify our admitted students, as we do rolling admissions. Fall applicants can expect a decision by April 15, but ISE does admit a few students after April 15.*

Q: Where do I send my official transcripts?
A: *Simple—You Don't. ISE does not require official transcripts unless you are admitted to our program. After being admitted, a student may bring or send their official transcripts to:*

The Graduate College  
204 Cable Hall  
801 S. Wright St.  
Champaign, IL 61820

Q: My TOEFL score is not the required minimum of 103. May I still apply?
A: *Yes. Students may be admitted on limited status if their TOEFL score is 79-102, but the applicant must be outstanding in other areas. Limited status requires the student take an English Placement Test (EPT) at the University of Illinois. On the basis of the EPT results, applicants are generally required to enroll in non-credit "English as a Second Language" courses and take a reduced academic load beginning the first semester at the University. See [http://www.linguistics.illinois.edu/students/placement/](http://www.linguistics.illinois.edu/students/placement/).*

Q: My recommender cannot use the online system. What do I do?
A: *ISE prefers that the recommender submit their recommendation online. If he/she is unable to do so, please ask your recommender to send the letter directly to ise-grad@illinois.edu or mail to:*

ISE Graduate Programs  
104 S. Mathews Ave.  
Urbana, IL 61801
Q: I completed a degree in a country where English is not the primary language, but my education was completely in English. Do I still need to submit my TOEFL scores?
A: Yes. Graduate applicants may be exempt from providing a TOEFL or IELTS score if one of the following criteria is met:

- Completion of at least two years of post-secondary full-time study, as defined by the home institution, in a country where English is the primary language and at an institution where English is the primary medium of instruction, within five years of the proposed term of initial enrollment at the University of Illinois at Urbana-Champaign.
- Completion of at least two years of professional work experience in a country where English is the primary language within five years of the proposed term of initial enrollment at the University of Illinois at Urbana-Champaign.
- Completion of a post-secondary degree in a country where English is the primary language and at an institution where English is the primary language of instruction, within five years of the proposed term of initial enrollment.

**IMPORTANT:** Please note that this exemption is for admission purposes only. This does not provide an exemption for international teaching assistants. For more information, please see the English Proficiency Requirement for International Teaching Assistants. Please click here for a list of countries that qualify for an exemption from the admissions requirement.

Q: How long does it take to complete your MS/PhD program?
A: There are many factors to consider—the motivation of the student, the number of hours taken each semester, thesis/non-thesis (MS only). Students pursuing the MS non-thesis option can complete the degree in a year if they register for 16 hours or more per semester (fall/spring) and 4 in the summer. Students pursuing the thesis option can expect to complete the MS in two years. In the PhD program, if a student is entering with an MS, the PhD can be completed in as little as three years, but the student must be very motivated and organized with a study plan.

Q: How much does it cost to attend the University of Illinois?
A: Tuition and fee costs are located at http://registrar.illinois.edu/tuition-fees.

Q: What are the degree requirements for the MS/PhD Industrial Engineering/Systems and Entrepreneurial Engineering?
A: Degree requirements for all majors are located at http://catalog.illinois.edu/degree-programs/.

Q: How do I know if I’m admitted to MS thesis or non-thesis?
A: Your admission letter will indicate thesis or non-thesis. As a general rule, students who do not wish to continue past the M.S. for a Ph.D. are admitted to the non-thesis option.

Q: When will I receive my I-20?
A: Processing of the I-20 is completed by the Graduate College. Once the I-20 is completed, it can take up to a week before it is received by the ISE Graduate Programs Office. The ISE Graduate Programs Office then requests the document to be sent via UPS World Wide Express, which usually takes approximately one week. A tracking number will be sent to the student.
Each day, organizations generate, gather, archive, and distribute huge amounts of data. But these companies need a new breed of employee to immerse themselves in this data and convert it into useful information that can help shape strategic decisions. These employees are in very short supply.

In the Advanced Analytics concentration, students will learn how to apply engineering approaches and methods to the analysis and management of engineering and business processes. They will learn how to collect, clean, and analyze data; build decision models based on data; and make predictions and decisions.

The University of Illinois and its College of Engineering are uniquely positioned to undertake programs that address this talent gap. A number of world-renowned experts on data analytics hold faculty positions at Illinois and facilities such as the National Center for Supercomputing Applications (NCSA) – with its recent National Data Center (NDC) initiative – and Blue Waters supercomputer are part of the Urbana-Champaign campus.
CONCENTRATION REQUIREMENTS

• Students must complete 12 credit hours in advanced analytics topics
• 8 hours from core course list
• 4 hours from secondary course list (or an additional 4 hours from the core course list)
• Students must earn a “B” grade or better in each Advanced Analytics concentration course
• Students must be enrolled in the Master of Science in Industrial Engineering (MSIE) degree program

CORE COURSES

IE 528 Computing for Data Analytics  4 Hours
IE 529 Stats of Big Data and Clustering    4 Hours IE
530 Optimization for Data Analytics  4 Hours IE
531 Algorithms for Data Analytics  4 Hours
IE 532 Analysis of Network Data  4 Hours
IE 533 Big Graphs and Social Networks 4 Hours

SECONDARY COURSES

IE 400 Design & Analysis of Experiments 4 hours
IE 410 Stochastic Processes And Their Applications 4 hours
IE 411 Optimization of Large Systems 4 hours IE
IE 510 Applied Nonlinear Programming 4 hours IE
511 Integer Programming  4 hours
IE 521 Convex Optimization  4 hours